

SOUTHERN DISTRIBUTION OF
THE ATLANTIC WHITESIDED DOLPHIN,
LAGENORHYNCHUS ACUTUS, IN
THE WESTERN NORTH ATLANTIC

Two mass strandings of the Atlantic whitesided dolphin, *Lagenorhynchus acutus*, in New England—Wellfleet, Mass., 11 May 1973 and Edmunds, Maine, 6 September 1974—initiated investigation at the New England Aquarium, Boston, into this species' life history and pathobiology. Previous distribution records for this species in the United States were reported by Cope (1876), True (1885, 1889), and Schevill (1956). Most references define this dolphin's southern distribution as Cape Cod, Mass. We believe this is based on a 206 cm female reported to have been collected near Portland, Maine, and described by Cope (1876) as *L. perspicillatus* (= *L. acutus*). Norton (1930) re-described the correct collecting site as Cape Cod.

The first confirmed Cape Cod report, although not a stranding, was on 14 September 1954 when a school sighting and harpooned specimen were reported by Schevill (1956). This school, about 12 animals, was located 93 km east of Cape Cod in water 145 m deep (Figure 1, number 3).

The following accounts, arranged in chronological order, update our present knowledge of this species' southernmost known occurrence in the western North Atlantic. Information is based upon stranding records of the Smithsonian Institution and the New England Aquarium, along with an examination of the collections of the American Museum of Natural History, New York, N.Y.; Academy of Natural Sciences, Philadelphia, Pa.; U.S. National Museum, Washington, D.C.; and the Museum of Comparative Zoology, Harvard University, Cambridge, Mass. Paragraph numbers below correspond to locality numbers in Figure 1 and to reported body measurements given in Table 1. Abbreviations for collection numbers are as follows: MCZ = Museum of Comparative Zoology, Harvard University, NEA = New England Aquarium, USNM = U.S. National Museum.

1. One male (USNM 22934) captured by the U.S. Fisheries schooner *Grampus* 20 mi (37 km) south of Montauk, Long Island, N.Y. (lat. 40°38' N, long. 71°49' W), 19 May 1888. This specimen was reported to have been captured from a school of about 100 animals.

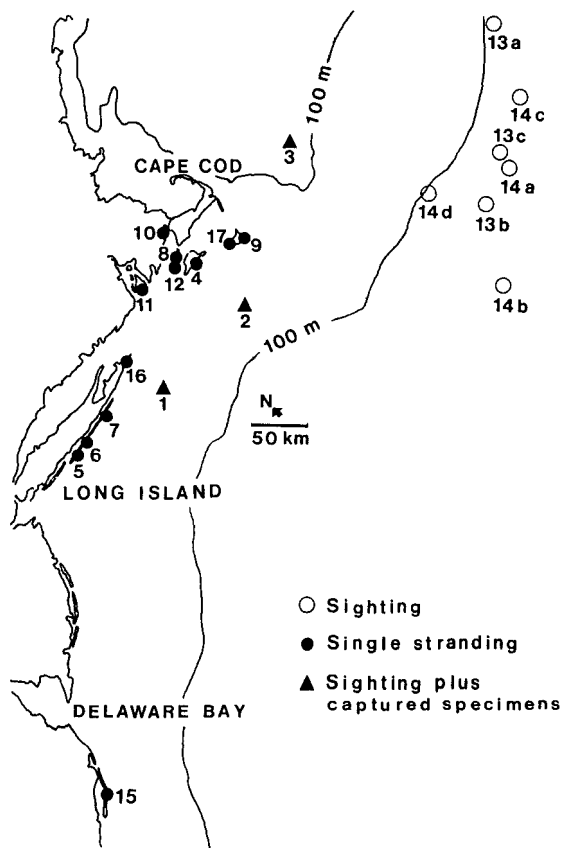


FIGURE 1.—Southernmost east coast locations of known Atlantic whitesided dolphin sightings. Numbers refer to specimens described in Table 1 and in text.

2. One female (USNM 22942), also captured by the *Grampus*, taken south of Cape Cod Islands (lat. 40°43' N, long. 70°32' W). No date recorded but because of its proximity to the prior animal's catalog number, we believe this animal was taken on the same cruise.

3. One female (MCZ 48548) harpooned from a small school off Cape Cod (lat. 41°35' N, long. 68°55' W), 14 September 1954 (Schevill 1956).

4. One skull (MCZ 48549) collected during the winter 1954-55 at South Beach, Martha's Vineyard, Mass.

5. One specimen washed ashore live at Ocean Beach, Fire Island, Long Island (lat. 40°39' N, long. 73°09' W), April 1971. Length estimated at about 7.5 ft (229 cm), sex undetermined. Skull measurements: condylobasal length, 391 mm; rostrum length, 196 mm; tooth width, up to 4 mm; dental formula $\frac{33-}{34-34}$.

TABLE 1.—Selected body measurements, nearest whole centimeter, of *Lagenorhynchus acutus* from the southernmost known occurrences in the western North Atlantic. Data in parentheses converted from English to metric. Doubtful measurements were not included. Localities are given in Figure 1 and text.

Measurement	Locality number and sex								Range	Percentage of total length	
	1(M)	2(F)	3(F)	7(M)	9(F)	10(F)	11(M)	12(-)		Range	Mean
Snout to:											
Notch, total length	(150)	(209)	225	233	165	224	202	(241)	150-241	—	—
Flipper	—	(38)	40	32	18	35	30	(41)	18-41	10.9-18.2	15.4
Tip of dorsal fin	—	—	87	88	93	119	112	—	87-119	37.8-56.4	48.3
Genital slit	—	(137)	—	153	112	157	125	(173)	112-173	61.9-71.8	67.2
Anus	(109)	—	—	—	118	165	141	(182)	109-182	69.8-75.5	72.6
Apex of melon	—	—	4	5	3	5	5	—	3-5	1.8-2.5	2.1
Center of eye	(22)	—	—	28	22	25	24	—	22-28	11.2-14.7	12.6
Angle of mouth	(19)	(25)	—	23	17	21	20	—	17-25	9.4-12.7	10.7
Ear	—	—	—	37	16	33	29	—	16-37	9.7-15.9	13.7
Girth:											
Maximum	—	—	—	103	91	119	121	—	91-121	43.8-59.9	53.0
At axilla	—	—	—	85	84	106	108	—	84-108	42.1-53.5	48.4
At eye	—	—	—	82	68	80	80	—	68-82	35.2-41.2	37.9
Flipper lengths:											
Anterior	(24)	(32)	—	34	25	34	28	(36)	24-36	13.9-15.3	15.0
Posterior	—	—	25	23	16	25	20	(24)	16-25	9.7-11.2	10.3
Maximum flipper width	(8)	(12)	—	14	9	12	11	(13)	8-14	5.3-6.0	5.5
Dorsal fin height	(15)	(22)	24	—	12	25	18	(22)	12-25	7.3-10.7	9.7
Fluke width	(35)	(57)	65	55	36	55	43	—	35-65	21.3-28.9	24.4
Number of visible teeth	—	—	30-30	30-30	31-29	—	30-32	33-30	—	—	—
			31-32	30-30	32-31	—	30-30	32-31			

6. One specimen, length and sex unknown, found along Patchogue, Long Island (lat. 40°43' N, long. 72°57' W), December 1973. Only the head and the tail were recovered. Estimation of total length from photographs is 160 cm. Tooth count from visible teeth was $\frac{-25}{-31}$.

7. One dead male found in surf line at Village Beach, Village of Westhampton Beach, Long Island (lat. 40°48' N, long. 72°38' W), 1 May 1974. Currently, the skeleton is on display at the New York Ocean Science Laboratory, Montauk, Long Island.

8. Decayed carcass of a 150 cm individual (skull USNM 504292), sex indeterminate, was examined on the southeastern corner of Pasque Island, Mass., Nantucket Sound (lat. 41°26' N, long. 70°51' W), 5 July 1975. According to residents, this animal had stranded 2 or 3 mo earlier thereby placing the stranding date in April or May.

9. A female (NEA MH7622) found live and later died on the southern side of Nantucket Island, Mass. (lat. 40°14' N, long. 70°00' W), 15 February 1976.

10. A female (NEA MH7670), 127.6 kg, stranded alive and later died at Marion, Mass. (lat. 41°42' N, long. 70°46' W), 28 April 1976.

11. One dead male (NEA MH7672), 109 kg, found on the eastern edge of Easten's Beach, Newport, R.I. (lat. 41°29' N, long. 71°17' W), 1 May 1976.

12. One decayed specimen (NEA MH76129), sex unknown, thought to have stranded during spring 1976. Found early May on the outer side of Cuttyhunk Island, Nantucket Sound, Mass. (lat. 41°25' N, long. 70°56' W).

13. Three 1976 sightings reported southeast of Cape Cod along the southeast edge of Georges Bank by the NOAA Ship *Albatross IV*, fall survey 76-09:

- School of 15-20 animals, lat. 41°13' N, long. 66°15' W, 27 March.
- Two animals, lat. 40°10' N, long. 67°12' W, 2 April.
- Five animals, lat. 40°26' N, long. 67°03' W, 2 August.

14. Four sightings on 2 January 1977 during U.S. Coast Guard aerial overflights during the *Argo Merchant* Oil Spill (Grose and Mattson¹):

- Two animals, lat. 40°21' N, long. 66°58' W.
- One animal, lat. 39°29' N, long. 68°20' W.
- One animal, lat. 40°34' N, long. 66°36' W.
- One animal, lat. 40°30' N, long. 68°03' W.

15. One female, 248 cm, stranded dead about 2.4 km south of the Virginia-Maryland border on Chincoteague National Wildlife Refuge in Virginia (lat. 38°02' N, long. 75°18' W), 27 May 1977.

16. A freshly stranded male animal, 234 cm, found at Deerfield Lane Beach, Amagansett, Long

¹Grose, P. L., and J. S. Mattson. 1977. The ARGO MERCHANT Oil Spill—A preliminary scientific report. U.S. Department of Commerce, Washington, D.C., Special Report, 323 p.

Island (lat. 41°00' N, long. 72°05' W), 30 August 1978.

17. On Nantucket Island, Eel Point (lat. 41°17' N, long. 70°05' W), approximately 200 cm specimen (NEA MH78143), sex unknown. The stranding took place on 4 September 1978.

The Virginia stranding extends the southern distribution approximately 700 km southwest of Schevill's (1956) sighting. These reportings south of lat. 41° N indicate that the range of the Atlantic whitesided dolphin is farther south than the Cape Cod area thus extending the range into the Middle Atlantic Bight.

There were two previous published records which had placed this species farther south than Schevill's reporting; however, these appear to be erroneous. True (1885) reported a series of skulls of *L. perspicillatus* (= *L. acutus*) taken in a net fishery at Fort Macon, N.C. That collection of skulls, now in the USNM, were examined and determined to be bottlenosed dolphin, *Tursiops truncatus* (Mead 1975). Rhoads (1903) listed *L. acutus* as possibly occurring off the coast of New Jersey based upon an illustration in Godman (1828). An examination of the original illustration indicates that the species depicted was a common dolphin, *Delphinus delphis*.

These occurrences, as far south as the Chesapeake Bight, indicate the southernmost known extent of the Atlantic whitesided dolphin distribution along the western North Atlantic. It appears from this information that the Atlantic whitesided dolphin has a peak occurrence in the Mid-Atlantic Region during spring and summer.

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Literature Cited

- COPE, E. D.
1876. Fourth contribution to the history of the existing Cetacea. Proc. Acad. Nat. Sci. Phila., Ser. 3, 28:129-139.
- GODMAN, J. J.
1828. American natural history. Vol. III, Part 1, Mastology. Carey, Lea and Carey, Phila., 264 p.
- MEAD, J. G.
1975. Preliminary report on the former fisheries for *Tursiops truncatus* in the western North Atlantic. J. Fish. Res. Board Can. 32:1155-1162.
- NORTON, A. H.
1930. The mammals of Portland, Maine, and vicinity. Proc. Portland Soc. Nat. Hist. 4, 155 p.
- RHODS, S. N.
1903. The mammals of Pennsylvania and New Jersey. Privately published, Phila., 206 p.
- SCHEVILL, W. E.
1956. *Lagenorhynchus acutus* off Cape Cod. J. Mammal. 37:128-129.
- TRUE, F. W.
1885. The porpoise fishery of Hatteras, N.C. Bull. U.S. Fish. Comm. 5:3-6.
1889. A review of the Family Delphinidae. Bull. U.S. Natl. Mus. 36, 191 p.

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ADDITIONAL RECORDS OF THE SCULPIN *PSYCHROLUTES PHRICTUS* IN THE EASTERN BERING SEA AND OFF OREGON

Psychrolutes phricus Stein and Bond is an unusually large *Psychrolutes* known heretofore from deep water between Monterey, Calif., and northern Oregon. The species can be distinguished from its only congener, *P. paradoxus*, by differences in relative head length, gill raker and pectoral fin ray counts, and the presence of small cirri on both head and body. Recent collections in the Bering Sea and off Oregon supplement the type-description and contribute new information on range and early life history.

During a 2-mo period (summer 1978), while a member of the foreign fisheries observer staff of